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Gordon R. Lindeen III  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
Seventh Floor  
12400 Wilshire Boulevard  
Los Angeles, CA 90025-1026

EXAMINER
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RAMAN, USHA

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2623

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/904,825

Applicant(s)

SHAH-NAZAROFF ET AL.

Examiner

Usha Raman

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 15<sup>th</sup>, 2007 has been entered.

***Response to Arguments***

2. Applicant's arguments filed October 15<sup>th</sup>, 2007 have been fully considered but they are not persuasive.

Applicant's arguments stating that, "this section is about characteristics of programs and not viewers and the weighted average is a much more complex intermediate measure" has been noted. Herz however discloses that a viewers' demographic psychographic characteristics maybe used in a plurality of calculations and clustering. For example, the effective popularity of shows between customers of similar tastes is derived from an agreement matrix. Herz further discloses that a customer can belong to more than one cluster, wherein a customer can get an agreement matrix that is a sum of the agreement matrices for groups the customer belongs to (see column 40, lines 33-40). The clustering can further take into account viewer's socio-demographic profiles (see column 48, lines 46-56). Accordingly when two users having similar tastes and similar socio-demographic profiles may be part of different clusters together, i.e. the other

viewers with more characteristics in common with the viewer will be in a plurality of clusters with the viewer, wherein the rating for that other viewer is counted once in each of the agreement matrices and therefore counted more in the sum of agreement matrices than ratings of other viewers with less characteristics in common with the viewer who may have only one cluster in common with the viewer.

For the reasons stated above, the rejection is maintained.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5, 7, 9-10, 12-13, 17-19, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. (US 2005/0149964 A1) in further view of Herz et al. (US Pat. 5,758,257).

As to claim 1, note the Thomas reference that discloses a system and a method for presenting broadcast of a television program to a viewer (see [0029]), and the step of providing to the viewer ratings of other broadcast programs obtained from monitoring other users watching other broadcasts. (Thomas [0065]).

Thomas fails to disclose the step of receiving viewer characteristics information about the viewer, and receiving viewer feedback to the other

broadcasts from the other viewers, wherein the ratings are generated by cross-referencing the viewer characteristics received from the viewer to characteristics of other viewers, so that, for each characteristic that the viewer has in common with another viewer, the rating for that other viewer is counted once so ratings of other viewers with more characteristics in common with the viewer will be counted more than ratings of other viewers with less characteristics in common with the viewer.

Herz discloses the step of obtaining viewer characteristics about a viewer, receiving feedback about a plurality of other programs from other viewers, and clustering (therefore cross referencing) the received viewer characteristics to the characteristics of other viewers. See column 14, lines 19-25 (obtaining feedback regarding a plurality of programs), column 11, lines 45-58 (viewer profile characteristics), column 15, lines 22-28, column 34, lines 31-33 (clustering similar characteristics), column 38, lines 56-64 (determining the popularity of a plurality of shows in a particular cluster). The effective popularity of shows between customers of similar tastes is derived from an agreement matrix. Herz further discloses that a customer can belong to more than one cluster, wherein a customer can get an agreement matrix that is a sum of the agreement matrices for groups the customer belongs to (see column 40, lines 33-40). The clustering can further take into account viewer's socio-demographic profiles (see column 48, lines 46-56). Accordingly when two users having similar tastes and similar socio-demographic profiles may be part of different clusters together, i.e. the other viewers with more characteristics in common with the viewer will be in a plurality of clusters with the

viewer, wherein the rating for that other viewer is counted once in each of the agreement matrices and therefore counted more in the sum of agreement matrices than ratings of other viewers with less characteristics in common with the viewer who may have only one cluster in common with the viewer.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Thomas in view of Herz by clustering a plurality of viewers by cross referencing a plurality their characteristics so that for each characteristic that the viewer has in common with another viewer, the rating for that viewer is counted once so ratings of the other viewers with more characteristics in common with the viewer will be counted more than ratings of the other viewers with less characteristics in common with the viewer, and providing ratings to viewers based on feedback received on other broadcasts from viewers in the same cluster thereby receiving ratings on broadcasts from viewers having similar preferences to the viewer.

With regards to claim 2, Herz further discloses the step of receiving viewer characteristics information comprising a plurality of categories of ratings and cross referencing using a weighted average of ratings for ratings categories that match the viewer's rating categories (see column 11, lines 25-29). The modified system is however silent on the step of displaying ratings from other viewers that do not have characteristics in common with the viewer are displayed differently than ratings from other viewers that do have characteristics in common with the viewer. Herz attempts to cluster users based on their tastes and socio—demographic

characteristics so that, when a user likes a program, its is likely that other users having similar tastes with this user would also like the program, i.e. it is likely to appeal to other users with similar tastes. Examiner further takes Official Notice that it was well known in the art at the time of the invention to highlight programs that are most likely to appeal to a user by displaying them differently than other programs that are less likely to appeal to the user. Accordingly, it would have been obvious to one of ordinary skill in the art to display the most popular programs from the combined agreement matrices such that ratings from other viewers having similar tastes are highlighted to the viewer over the programs from viewers having less in common with the viewer, so that recommendations maybe brought to the user's attention.

With regards to claims 5, Herz discloses the step of providing questionnaires requesting for feedback on characteristic level of the video section of a video program just presented to the user (the questionnaire is therefore specific to the broadcast, see column 14, lines 21-25) and further receiving answers to the questionnaire (see column 14, lines 27-30).

As to claim 7, the claimed "further comprising receiving viewer characteristic information about the viewer along with the feedback from the viewer." Note the Thomas reference discloses a plurality of data that may be collected and distributed to the headend (Thomas [0059]). The Thomas reference further discloses "[w]hen the user selects options button 182, the user is provided with opportunities to select a type of real-time ratings information that the user desires

to view... [t]he user may direct the program guide to display real-time ratings information for the nation, for a state, for a metropolitan area, a city or town, or any other suitable geographic area" (Thomas [0070]). The claimed "further comprising receiving viewer characteristic information about the viewer along with the feedback from the viewer" is met by Herz disclosing the receipt of customer questionnaires, customer demographics, relevance feedback techniques, default profiles and the like (Herz 4:33-58) wherein demographic information includes geographic location such as by zip codes (Herz 11:59-66).

As to claim 9, the claimed "wherein generating a rating comprises generating a rating using the viewer characteristic information to generate separate ratings for different categories of viewers" is met by the combination as discussed in the rejection of claim 7 wherein the characteristic data including geographic location is used to generate separate ratings for different geographic locations.

As to claim 10, Thomas discloses the step of providing ratings in real time that is repeatedly updated as the viewer is watching the program that the ratings concern (real time ratings, Thomas [0065]). The modified system is silent on the limitation of providing ratings to the viewer providing ratings in real time using a feedback meter, however examiner takes Official Notice that known methods existed at the time of the invention to display graphically the popularity of an item. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system by displaying graphical indication of the relative popularity of the program thereby displaying a feedback meter



indicating popularity, thereby presenting user popularity of the program among user's demographics in an intuitive manner

As to claim 12, the claimed "wherein providing ratings of other broadcasts comprises providing the ratings along with a programming guide that includes the other broadcasts" is met by "Real-time ratings may be provided to users at user television equipment 32 for display on television 38 in real time...An illustrative real-time ratings program guide screen 176 is shown in FIG. 10a... contains title 178, real-time ratings information 180..." (Thomas [0066]).

As to claim 13, the claimed "wherein providing the ratings of other broadcasts comprises providing the ratings along with a programming guide that includes the other broadcasts". Note the Thomas reference discloses "[a]t step 170, the information collected in step 154 is used to generate real-time ratings" (Thomas [0063]). However, the Thomas reference is silent as to whether the real-time ratings are generated as user data is received or after all user data has been collected. Nevertheless, the examiner gives Official Notice that it is notoriously well known in the art of data processing, to perform processing on data as they arrive for the purpose of providing real-time results that may be viewed more quickly by obviating the need to wait until all data is received before processing. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Thomas real-time ratings generation accordingly for the above stated advantages.

As to claim 17, note the Thomas reference that discloses a system comprising processors for handling the method of presenting broadcast of a television program to a viewer (see [0029]), and the step of providing to the viewer ratings of other broadcast programs obtained from monitoring other users watching other broadcasts. (Thomas [0065]).

Thomas fails to disclose the step of receiving viewer characteristics information about the viewer, and receiving viewer feedback to the other broadcasts from the other viewers, wherein the ratings are generated by cross-referencing the viewer characteristics received from the viewer to characteristics of other viewers.

Herz discloses the step of obtaining viewer characteristics about a viewer, receiving feedback about a plurality of other programs from other viewers, and clustering (therefore cross referencing) the received viewer characteristics to the characteristics of other viewers. See column 14, lines 19-25 (obtaining feedback regarding a plurality of programs), column 11, lines 45-58 (viewer profile characteristics), column 15, lines 22-28, column 34, lines 31-33 (clustering similar characteristics), column 38, lines 56-64 (determining the popularity of a plurality of shows in a particular cluster).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Thomas in view of Herz by clustering a plurality of viewers by cross referencing a plurality their characteristics, and providing ratings to viewers based on feedback received on other broadcasts from

viewers in the same cluster thereby receiving ratings on broadcasts from viewers having similar preferences to the viewer.

With regards to claim 18, Herz further discloses the step of receiving viewer characteristics information comprising a plurality of categories of ratings and cross referencing using a weighted average of ratings for ratings categories that match the viewer's rating categories (see column 11, lines 25-29).

As to claim 19, the claimed "instructions causing the machine to perform operations comprising generating a rating further comprise instructions causing the machine to perform operations comprising generating a rating using viewer characteristic information to generate separate ratings for different categories of viewers" is met by the "[w]hen the user selects options button 182, the user is provided with opportunities to select a type of real-time ratings information that the user desires to view... [t]he user may direct the program guide to display real-time ratings information for the nation, for a state, for a metropolitan area, a city or town, or any other suitable geographic area" (Thomas [0070]).

As to claim 27, note the Thomas reference that discloses a program guide system with monitoring of advertisement usage and user activities. The system discloses a method for presenting broadcast of a television program to a viewer (see [0029]), and the step of providing to the viewer ratings of other broadcast programs obtained from monitoring other users watching other broadcasts. (Thomas [0065]). The claimed "a communications interface to receive monitored data to a broadcast from a plurality of different viewers of the broadcast" is met by

"[f]or example, such data structures may be collected in whole or in part in user televisions equipment 32 (FIGS. 1 and 2) and passed to television distribution facility 28 or other suitable data processing facility for analysis" (Thomas [0059]) wherein a communication interface is inherent to the receipt of feed back by the facility. The claimed "a processor to generate a rating of the broadcast based at least in part on the received viewer feedback to the broadcast, the rating indicated a likelihood of interest in the first broadcast for potential subsequent viewers" is met by "the information collected in step 154 is used to generate real- time ratings such as real-time ratings of how popular (or unpopular) certain television programs" (Thomas [0063]) wherein a processor is inherent to the generation of the disclosed real-time ratings. The claimed "wherein the communications interface provides the rating of the broadcast to viewer entertainment systems for display to potential subsequent viewers of the broadcast the potential subsequent viewers including the plurality of different viewers of the broadcast" is met by "[a]t step 174, the real-time ratings information generated at step 170 may be distributed to user television equipment 32 and displayed" (Thomas [0065]).

Thomas fails to disclose the step of receiving a viewer characteristic information about the viewer and receiving viewer feedback to the other broadcasts from the other viewers, wherein the ratings are generated by cross-referencing the viewer characteristics received from the viewer to characteristics of other viewers, so that, for each characteristic that the viewer has in common with another viewer, the rating for that other viewer is counted once so ratings of other viewers with

more characteristics in common with the viewer will be counted more than ratings of other viewers with less characteristics in common with the viewer.

Herz discloses the step of obtaining viewer characteristics about a viewer, receiving feedback about a plurality of other programs from other viewers, and clustering (therefore cross referencing) the received viewer characteristics to the characteristics of other viewers. See column 14, lines 19-25 (obtaining feedback regarding a plurality of programs), column 11, lines 45-58 (viewer profile characteristics), column 15, lines 22-28, column 34, lines 31-33 (clustering similar characteristics), column 38, lines 56-64 (determining the popularity of a plurality of shows in a particular cluster). The effective popularity of shows between customers of similar tastes is derived from an agreement matrix. Herz further discloses that a customer can belong to more than one cluster, wherein a customer can get an agreement matrix that is a sum of the agreement matrices for groups the customer belongs to (see column 40, lines 33-40). The clustering can further take into account viewer's socio-demographic profiles (see column 48, lines 46-56). Accordingly when two users having similar tastes and similar socio-demographic profiles may be part of different clusters together, i.e. the other viewers with more characteristics in common with the viewer will be in a plurality of clusters with the viewer, wherein the rating for that other viewer is counted once in each of the agreement matrices and therefore counted more in the sum of agreement matrices than ratings of other viewers with less characteristics in common with the viewer who may have only one cluster in common with the viewer.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Thomas in view of Herz by clustering a plurality of viewers by cross referencing a plurality their characteristics so that for each characteristic that the viewer has in common with another viewer, the rating for that viewer is counted once so ratings of the other viewers with more characteristics in common with the viewer will be counted more than ratings of the other viewers with less characteristics in common with the viewer, and providing ratings to viewers based on feedback received on other broadcasts from viewers in the same cluster thereby receiving ratings on broadcasts from viewers having similar preferences to the viewer.

As to claim 28, the claimed "a programming guide server to provide a programming guide to the viewer entertainment systems through the communications interface the broadcasts of the programming guide" is met by "television distribution facility 28 [for distributing].., program listing information" (Thomas [0039]). The claimed "being associated with a rating" is met by "[t]he program guide may also provide real-time ratings information to the user automatically" (Thomas [0066]) wherein the ratings information is collected and generated by television distribution facility [programming guide server] (Thomas [0059,0063]).

As to claim 29, the claimed "wherein the communications interface receives viewer characteristic information along with the viewer feedback and wherein the control circuitry generates a rating using the viewer characteristics information to

generate separate ratings for different categories & viewers" is met by the "[w]hen the user selects options button 182, the user is provided with opportunities to select a type of real-time ratings information that the user desires to view... [t]he user may direct the program guide to display real-time ratings information for the nation, for a state, for a metropolitan area, a city or town, or any other suitable geographic area" (Thomas [0070]).

5. Claims 3, and 4, are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. (US 2005/0149964 A1) in further view of Herz et al. (US Pat. 5,758,257) and McKenna et al. (US 4,816,904).

As to claim 3, modified system discloses the claimed "wherein receiving feedback comprises providing a questionnaire to the viewer in response to a request from the viewer to provide feedback." Note the Thomas reference feedback for real-time ratings information "may be collected in whole or in part in user television equipment 32 (FIGS. 1 and 2) and passed to television distribution facility 28 or other suitable data processing facility for analysis" (Thomas [0059]). " Note, the Thomas reference discloses "[i]f system 20 contains a viewing activities monitor such as viewing activities monitor 102 of FIG. 4, the system may maintain data structures such as viewing activities data structure 136 of FIG. 7 to keep track of the program that each viewer watches" (Thomas [0057]) to generate real-time ratings (Thomas [0063]). However, system does not specifically providing a questionnaire to the viewer in response to a request from the viewer to provide feedback. Now note the McKenna et al. reference that discloses a television and

market research data collection system and method wherein survey questionnaires are stored in a data collection unit and displayed to a user upon user request (by selection of the survey pushbutton switch) (McKenna 7:28-47). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention to further modify the system's monitoring of viewing activities for ratings generation with the McKenna et al. questionnaire upon request for the purpose providing a more accurate rating that is not only based just on number of viewers but viewer opinion regarding the broadcast and the ability to display questionnaires to the user when it is convenient to the user.

As to claim 4, the claimed "wherein the request from the viewer comprises an identification of one form among a list of broadcasts recently viewed by the viewer" is met by the combination as discussed in the rejection of claim 3, wherein "the system may maintain data structures such as viewing activities data structure 136 of FIG. 7 to keep track of the program that each viewer watches [a list of previously watched programs]" (Thomas [0057]). Also note that the combination teaches requesting a questionnaire related to programming wherein it is inherent that the request comprise some kind of identification in order to retrieve a questionnaire corresponding to a particular program.

6. Claims 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (US 2005/0149964 A1) in further view of Herz et al. (US Pat. 5,758,257) and Logan et al. (US 5,732,216).



As to claim 6, modified system teaches the claimed "further comprising offering an incentive to the viewer to encourage the viewer to provide feedback." Note the Thomas reference discloses "the system may maintain data structures such as viewing activities data structure 136 of FIG. 7 to keep track of the programs that each viewer watches" (Thomas [0057]) wherein "such data structures may be collected in whole or in part in user television equipment 32 (FIGS. 1 and 2) and passed to television distribution facility 22 or a separate data processing facility" (Thomas [0059]) the "information collected in step 154 is used to generate real-time ratings such as real-time ratings of how popular (or unpopular) certain television programs are or real-time ratings indicating which non-program-guide applications such as video games are being used most (or least) often" (Thomas [0063]). The system does not specifically disclose providing the user an incentive to provide feedback. Now note the Logan et al. reference that discloses the claimed "further comprising offering an incentive to the viewer to encourage the viewer to provide feedback" wherein the system can provide a "fill-in-the-blanks" questionnaire that can be used to gather data from users, including survey data, program ratings, and the like wherein the subscribers who provide requested information may receive credit which reduces subscription charges or other incentives" (Logan 2:31-46). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the feedback collection with the Logan questionnaires and incentives for the purpose of providing ratings information that more accurately

reflects a user's opinion of the programming and to provide an incentive so that the user will more likely provide the requested information.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. (US 2005/0149964 A1) in further view of Herz et al. (US 5,758,257) and Sahai et al. (US 6,594,699 B1).

As to claim 8, the combination discloses claimed "wherein the viewer characteristic information includes hardware capabilities of an entertainment system of the viewer." Note the Thomas reference teaches the monitoring of a plurality of user characteristics including the usage of various program guide screens and non-program-guide applications the user runs. However, system does not specifically teach monitoring hardware capabilities. Now note the Sahai et al. reference that discloses a system for capability based multimedia streaming over a network. The claimed "wherein the viewer characteristic information includes hardware capabilities of an entertainment system of the viewer" is met by "[t]he [client] capabilities can be shipped and then stored n the server" (Sahai et al. 3:5-60; 32-40). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the monitoring system including viewer characteristics to include the Sahai et al. hardware capabilities for the purpose of providing programming providers with data regarding the capabilities of user systems in order to efficiently determine what type of applications or enhanced programming options to provide to viewers.

8. Claim 11, 21, 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (US 2005/0149964 A1) in further view of Herz et al. (US Pat. 5,758,257) and Lett (US 5,539,822).

As to claim 11, the combination discloses the claimed "further comprising providing the generated rating of the broadcast to programming providers." Note the Thomas reference discloses "the information collected in step 154 is used to generate real-time ratings such as real-time ratings of how popular (or unpopular) certain programs are" (Thomas [0063]) and "[a]t step 174, the real-time ratings information generated at step 170 may be distributed to user television equipment 32 and displayed" (Thomas [0065]). However, the system is silent as to providing the ratings information to programming providers. Now note the Lett reference that discloses a system and method for subscriber interactivity in a television system wherein viewing statistic data are provided to the service providers for feedback as to the popularity of their programming choices (Lett 13:34-38). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify system ratings information with the Lett providing of feedback regarding programming to service providers for the purpose of allowing the users to determine the popularity of their programming choices and adjust their schedules to better suit the tastes of the consumers.

As to claim 21, note the Thomas reference that discloses a program guide system with monitoring of advertisement usage and user activities. Note, the Thomas reference discloses "[i]f system 20 contains a viewing activities monitor

such as viewing activities monitor 102 of FIG 4, the system may maintain data structures such as viewing activities data structure 136 of FIG. 7 to keep track of the program that each viewer watches" (Thomas [0057]) to generate real-time ratings (Thomas [0063]).

Thomas fails to disclose the step of receiving viewer characteristic information about the viewer, wherein the ratings are generated by cross-referencing the viewer characteristics received from the viewer to characteristics of other viewers, , so that, for each characteristic that the viewer has in common with another viewer, the rating for that other viewer is counted once so ratings of other viewers with more characteristics in common with the viewer will be counted more than ratings of other viewers with less characteristics in common with the viewer.

Herz discloses the step of obtaining viewer characteristics about a viewer, receiving feedback about a plurality of other programs from other viewers, and clustering (therefore cross referencing) the received viewer characteristics to the characteristics of other viewers. See column 14, lines 19-25 (obtaining feedback regarding a plurality of programs), column 11, lines 45-58 (viewer profile characteristics), column 15, lines 22-28, column 34, lines 31-33 (clustering similar characteristics), column 38, lines 56-64 (determining the popularity of a plurality of shows in a particular cluster). The effective popularity of shows between customers of similar tastes is derived from an agreement matrix. Herz further discloses that a customer can belong to more than one cluster, wherein a customer can get an agreement matrix that is a sum of the agreement matrices for groups

the customer belongs to (see column 40, lines 33-40). The clustering can further take into account viewer's socio-demographic profiles (see column 48, lines 46-56). Accordingly when two users having similar tastes and similar socio-demographic profiles may be part of different clusters together, i.e. the other viewers with more characteristics in common with the viewer will be in a plurality of clusters with the viewer, wherein the rating for that other viewer is counted once in each of the agreement matrices and therefore counted more in the sum of agreement matrices than ratings of other viewers with less characteristics in common with the viewer who may have only one cluster in common with the viewer.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Thomas in view of Herz by clustering a plurality of viewers by cross referencing a plurality their characteristics so that for each characteristic that the viewer has in common with another viewer, the rating for that viewer is counted once so ratings of the other viewers with more characteristics in common with the viewer will be counted more than ratings of the other viewers with less characteristics in common with the viewer, and providing ratings to viewers based on feedback received on other broadcasts from viewers in the same cluster thereby receiving ratings on broadcasts from viewers having similar preferences to the viewer.

However, the combination fails to specifically teach the method such questionnaires are provided. Now note the Lett reference that discloses a system and method for subscriber interactivity in a television system. The claimed "a

storage medium to store a questionnaire regarding a broadcast that is presented to a viewer on a display" is met by "[a]ccording to the present invention, interactive information is communicated between a central source and the subscriber terminal...The interactive information may include a template screen [questionnaire] downloaded from the central source to the subscriber terminal 14 to be completed by the user" (Lett 13:20-23)" wherein the storage medium is inherent to the transmission of the questionnaire to the user, since the questionnaire must be stored, at least temporarily, at the central source in order to be transmitted. The claimed "control circuitry to provide a feedback questionnaire to the viewer" is met by system manager 22 (Lett 5:20-32). The claimed "a viewer interface to receive feedback to the broadcast from the viewer based on the feedback questionnaire" is met by the display of the template (questionnaire) for entering in responses (Lett 13:20-27). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the combination teaching a television distribution facility including feedback by questionnaire with the Lett system for implementing questionnaires for the purpose of providing a means transmitting and processing questionnaires in the system. The claimed "a communications interface to provide the feedback to the broadcast from the viewer to a server system and to receive ratings from the server system regarding other available broadcasts based on viewer feedback from other viewers, the ratings indicating a likelihood of interest in the available broadcasts for the viewer" is met by the combination as discussed above wherein the collected data is

passed to television distribution facility 28 or other suitable data processing facility for analysis" (Thomas [0059]), "[c]ertain functions, such as... data collection functions, may require that user television equipment 32 transmit data to television distribution facility 28 over communications path 34. If desired, such data may be transmitted over telephone lines or other separate communication paths" (Thomas [0040]). The claimed "wherein the control circuitry further provides the ratings regarding other available broadcasts to the viewer" is met by the combination wherein the television distribution facility provides the real-time ratings information for display on user television equipment (Thomas [0069]).

As to claim 23, please see rejection of claim 21.

As to claim 24, the combination discloses the claimed "wherein the communications interface provides viewer characteristic information to the server system along with the viewer feedback." Note the Thomas reference discloses a plurality of data that may be collected and distributed to the headend (Thomas [0059]). The Thomas reference further discloses "[w]hen the user selects options button 182, the user is provided with opportunities to select a type of real-time ratings information that the user desires to view... [t]he user may direct the program guide to display real-time ratings information for the nation, for a state, for a metropolitan area, a city or town, or any other suitable geographic area" (Thomas [0070]). The Herz et al. reference discloses the method for scheduling broadcast of and access to video programs and other data using customer profiles. The claimed "further comprising receiving viewer characteristic information about the viewer

along with the feedback from the viewer" is met by the receipt of customer questionnaires, customer demographics, relevance feedback techniques, default profiles and the like (Herz 4:33-58) wherein demographic information includes geographic location such as by zip codes (Herz 11:59-66).

9. Claims 14-16, 20, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. (US 2005/0149964 A1) in further view of Herz et al. (US 5,758,257) and Barrett et al. (US 6,005,597).

As to claim 14, the combination discloses claimed "further comprising presenting a programming guide of the broadcast to the viewer" is met by "real-time ratings program guide screen 176 is shown in FIG. 10a... Screen 176 contains title 178, real-time ratings information 180, options button 182, and cancel button 183" (Thomas [0066]) and various other guide displays (Thomas [0070]) However, the system doesn't specifically disclose "wherein the other broadcasts are ranked based on the ratings." Now note the Barrett reference that discloses channels are ranked according to their scores, highest score to lowest (Barrett 10:44-46). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system display of programming with rating information with the Barrett et al. ranking for the purpose of displaying programming that is sorted based on the rating so that the user may quickly identify the ranking of a given program relative to the other programming.



As to claim 16, the combination discloses the claimed "further comprising presenting a programming guide of the other broadcasts to the viewer" is met by "real-time ratings program guide screen 176 is shown in FIG. 10a... Screen 176 contains title 178, real-time ratings information 180, options button 182, and cancel button 183" (Thomas [0066]) and various other guide displays (Thomas [0070]). However, the system doesn't specifically disclose "wherein the other broadcasts are ranked based on the ratings." Now note the Barrett reference that discloses channels are ranked according to their scores, highest score to lowest (Barrett 10:44-46). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the system display of programming with rating information with the Barrett et al. ranking for the purpose of displaying programming that is sorted based on the rating so that the user may quickly identify the ranking of a given program relative to the other programming. The claimed "[ranked based] on the viewer characteristic information" is met by the Thomas, Herz et al., and Barrett et al. combination wherein ratings may further be based on geographic area (Thomas [0070], viewer characteristic information as discussed in the rejection of claim 7.

As to claim 20, the claimed "assembling a list of available broadcasts using viewer characteristic information for the viewer; ranking the available broadcasts in the list based on the rating for each respective broadcast; and presenting a programming guide to the viewer showing the ranked." The system fails to specifically disclose presenting a program guide of available broadcasts to a viewer

wherein the available broadcasts are ranked based on viewer characteristics information as recited in the claims. Barrett discloses a method and apparatus for presenting a program guide of available broadcasts to a viewer where the available broadcasts are ranked based on viewer characteristics information for the advantage of providing the viewer with a quick and convenient way to select a program desired by the viewer. This system provides a redacted listing of broadcast programs based on the viewer characteristics to facilitate quick program selection instead of selecting from a full cumbersome program listing. See col. 2, lines 9-43 and col. 7, lines 50-57. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system to include presenting a program guide of available broadcasts to a viewer wherein the available broadcasts are ranked based on viewer characteristics information, as taught by Barrett, for the advantage of providing the viewer with a quick and convenient way to select a program desired by the viewer.

As to claim 30, please see rejection of claim 20.

As to claim 15, the combination discloses the claimed "assembling a list of available broadcasts using viewer characteristic information for the viewer; ranking the available broadcasts in the list based on the rating for each respective broadcast; and presenting a programming guide to the viewer showing the ranked." The system fails to specifically disclose presenting a program guide of available broadcasts to a viewer wherein the available broadcasts are ranked based on viewer characteristics information as recited in the claims. Barrett discloses a

method and apparatus for presenting a program guide of available broadcasts to a viewer where the available broadcasts are ranked based on viewer characteristics information for the advantage of providing the viewer with a quick and convenient way to select a program desired by the viewer. This system provides a redacted listing of broadcast programs based on the viewer characteristics to facilitate quick program selection instead of selecting from a full cumbersome program listing. See col. 2, lines 9-43 and col. 7, lines 50-57. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the system to include presenting a program guide of available broadcasts to a viewer wherein the available broadcasts are ranked based on viewer characteristics information, as taught by Barrett, for the advantage of providing the viewer with a quick and convenient way to select a program desired by the viewer.

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. (US 2005/0149964 A1) in further view of Herz et al. (US Pat. 5,758,257), Lett (US 5,539,822), McKenna et al. (US 4,816,904).

As to claim 22, the combination discloses the claimed "wherein the control circuitry retrieves the questionnaire from the storage medium in response to a request from the viewer." Note the combination teaches providing a questionnaire, retrieved from storage, from the television distribution facility to the user, as discussed above. However, the system does not specifically disclose retrieving the questionnaire in response to a request from the viewer. Now note the McKenna et al. reference that discloses a television and market research data collection system

and method wherein survey questionnaires are stored in a data collection unit and displayed to a user upon user request (by selection of the survey pushbutton switch) (McKenna 7:28-47). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the combination providing a questionnaire with the McKenna et al. questionnaire upon request for the purpose of allowing the user to choose a convenient time to complete the questionnaire.

11. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (US 2005/0149964 A1) in further view of Herz et al. (US Pat. 5,758,257), Lett (US 5,539,822), and Sahai et al. (US 6,594,699 B).

As to claim 25, the claimed "further comprising a register containing information regarding the entertainment system of the viewer and wherein the communications interface provides hardware capabilities information from the register to the server system along with the viewer feedback." Note the Thomas reference teaches the monitoring of a plurality of user characteristics including the usage of various program guide screens and non-program-guide applications the user runs. However, the Thomas reference does not specifically teach monitoring hardware capabilities. Now note the Sahai et al. reference that discloses a system for capability based multimedia streaming over a network. The claimed "further comprising a register containing information regarding the entertainment system of the viewer and wherein the communications interface provides hardware capabilities information from the register to the server system" is met by "It]he

[client] capabilities can be shipped and then stored n the server" wherein a register for storing the hardware capabilities is inherent to the providing of the hardware capabilities information as evidenced by the ability to request hardware capabilities from the client (Sahai et al. 3:5-60; 32-40). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination teaching a monitoring system with feedback to include the Sahai et al. hardware capabilities for the purpose of providing programming providers with data regarding the capabilities of user systems in order to efficiently determine what type of applications or enhanced programming options to provide to viewers. Note the claimed "along with the viewer feedback" is met by the combination as discussed above.

12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. (US 2005/0149964 A1) in further view of Herz et al. (US Pat. 5,758,257), Lett (US 5,539,822), Barrett et al. (US 6,005,597).

As to claim 26, the combination discloses the claimed "further comprising a storage medium to store information regarding available broadcasts" is met by "[m]ain facility 22 contains a program guide database 24 for storing program guide information such as television program guide listings data... Information from databases 24 and 26 may be transmitted to multiple television distribution facilities" (Thomas [0028]) and transmitted to user television equipment (Thomas [0039]) wherein it is inherent that the program guide information at least be temporarily stored at the television distribution facility in order for it to be

transmitted to the user television equipment. The system fails to specifically disclose the claimed "and wherein the control circuitry assembles a list of available broadcasts using viewer characteristic information for a selected viewer; ranks the available broadcasts in the list based on the rating for each respective broadcast; and presents a programming guide showing the ranked list to the viewer." Now note, the Barrett discloses a method and apparatus for presenting a program guide of available broadcasts to a viewer where the available broadcasts are ranked based on viewer characteristics information for the advantage of providing the viewer with a quick and convenient way to select a program desired by the viewer. This system provides a redacted listing of broadcast programs based on the viewer characteristics to facilitate quick program selection instead of selecting from a full cumbersome program listing. See col. 2, lines 9-43 and col. 7, lines 50-57. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the system to include presenting a program guide of available broadcasts to a viewer wherein the available broadcasts are ranked based on viewer characteristics information, as taught by Barrett, for the advantage of providing the viewer with a quick and convenient way to select a program desired by the viewer.


### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UR

  
**CHRIS KELLEY**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**